INDEX OF AUTHORS

VOLUME XXXIX

TRANSACTIONS OF AMERICAN SOCIETY FOR METALS

1947

B

Baer, C. K. 488
Barrett, C. S. 670
Bloom, F. K. 843
Butler, G. M., Jr. 549

C

Cohen, J. B. 109

D

DeMoss, J. E. 788
Dorn, John E. 741

E

Eberly, W. S. 868
Epremian, E. 261

F

Fetters, K. L. 627

G

Gippert, L. E. 549
Goller, G. N. 843
Grant, Nicholas J. 281, 335, 368
Gray, T. H. 453
Grobe, Arthur H. 521

H

Hägglund, Erik 820
Haller, C. T. 670
Ham, W. R. 73
Harrington, R. H. 773
Haslem, M. Eleanor 213, 241
Hawkes, Malcolm F. 1
Hedberg, James 61
Herres, S. A. 162
Hoge, H. R. 694
Hultgren, Axel 820, 915
Hurlich, A. 109

J

Jackson, L. R. 45
Jacobson, M. 109

L

Layland, E. L. 627
Loria, Edward A. 651

M

Mabus, P. G. 843
Manning, G. K. 801
Moersch, Christian F., Jr. 521

P

Payson, Peter 404, 488
Pellini, W. S. 139
Phillips, Freeman J. 891
Pochapsky, T. E. 45
Post, C. B. 868

Q

Queneau, B. R. 139

R

Rhines, F. N. 694
Roberts, George A. 521
Rosen, Louis 713
Rosenthal, P. C. 801

S

Samans, C. H. 73
Savage, Charles H. 404
Schwartz, H. A. 61
Specht, O. George, Jr. 193
Spretnak, J. W. 569, 627

T

Thompson, A. Paul 651
Thomsen, E. G. 741
Troiano, A. R. 788

U

Urquhart, W. M. 694

W

Warga, J. J. 680
Wood, John Karl, Jr. 725

Z

Zapffe, Carl A. 193, 213, 241

INDEX OF SUBJECTS AND AUTHORS OF PAPERS

VOLUME XXXIX

TRANSACTIONS OF AMERICAN SOCIETY FOR METALS

1947

A

Acid Composition, Concentration, Temperature, and Pickling Time as Factors in the Hydrogen Embrittlement of Mild Steel and Stainless Steel Wire—*By Carl A. Zapffe and M. Eleanor Haslem*..... 213
Alloy Sheet; Precipitation Heat Treatment of Work-Hardened 61S-W Aluminum—*By J. J. Warga* 680
Alloy Steels; Carbide and Oxide in Surface Zones of Carburized—*By Axel Hultgren and Erik Hägglund* 820
Alloy Steels; Development of Temper Brittleness in—*By W. S. Pellini and B. R. Queneau* 139
Alloy Steels; Mechanical Properties of Cast Low—*By Malcolm F. Hawkes* 1
Aluminum Alloy Sheet; Precipitation Heat Treatment of Work-Hardened 61S-W—*By J. J. Warga* 680
Annealing of Malleable Iron; Decarburization During—*By H. A. Schwartz and James Hedberg* 61
Austenite; Isothermal Transformation of—*By Axel Hultgren* 915
Austenite in Stainless Steels; Stability of—*By C. B. Post and W. S. Eberly* 868
Austenitic Chromium-Nickel Steels During Exposures at 1100 to 1700 F; Changes in—*By Peter Payson and Charles H. Savage*..... 404

B

Bainitic Hardening of High Speed Steel—*By C. K. Baer and Peter Payson* 488
Beryllium; New Wrought Zinc Alloys Containing Small Amounts of—*By R. H. Harrington* 773
Brazing as Applied to 12% Chromium Low Carbon Steel; Study of Furnace—*By T. H. Gray* 453

C

Cadmium and Chromium Electroplating and the Nature of Recovery of Plated Articles; Measurement of Embrittlement During—*By Carl A. Zapffe and M. Eleanor Haslem* 241
Carbide and Oxide in Surface Zones of Carburized Alloy Steels—*By Axel Hultgren and Erik Hägglund* 820
Carburized Alloy Steels; Carbide and Oxide in Surface Zones of—*By Axel Hultgren and Erik Hägglund*..... 820
Carburized Cases of Hypoeutectoid Carbon Content—*By P. C. Rosenthal and G. K. Manning* 801
Carburizing Steels; Transformations in Krupp-Type—*By A. R. Troiano and J. E. DeMoss* 788
Cast Low Alloy Steels; Mechanical Properties of—*By Malcolm F. Hawkes* 1
Cathodic Pickling; Effect of Composition, Heat Treatment, and Cold Work on the Hydrogen Embrittlement of Stainless Steel Wire During—*By Carl A. Zapffe and O. George Specht, Jr*..... 193

Changes in Austenitic Chromium-Nickel Steels During Exposures at 1100 to 1700 F—*By Peter Payson and Charles H. Savage* 404
Changes in Size and Toughness of High Carbon-High Chromium Steels Due to Subzero Treatments—*By L. E. Gippert and G. M. Butler, Jr.* 549
Chromium and Cadmium Electroplating and the Nature of Recovery of Plated Articles; Measurement of Embrittlement During—*By Carl A. Zapffe and M. Eleanor Haslem* 241
Chromium (12%) Low Carbon Steel; Study of Furnace Brazing as Applied to—*By T. H. Gray* 453
Chromium-Nickel Steels During Exposures at 1100 to 1700 F; Changes in Austenitic—*By Peter Payson and Charles H. Savage*..... 404
Cobalt, Iron and Nickel; Application to—Electrolytic Conductivity as a Method for Studying Electronic Transitions in Elements—*By W. R. Ham and C. H. Samans* 73
Cold Rolling Mill Variables on Low Carbon Steel; Pole Figures of the Effect of Some—*By John Karl Wood, Jr*..... 725
Cold Work, Composition and Heat Treatment Effect on the Hydrogen Embrittlement of Stainless Steel Wire During Cathodic Pickling—*By Carl A. Zapffe and O. George Specht, Jr*..... 193
Cold Work Hardening Properties of Stainless Steel in Compression—*By F. K. Bloom, G. N. Goller and P. G. Mabus*..... 843
Composition Effect on the Fatigue Strength of Decarburized Steel—*By L. R. Jackson and T. E. Pochapsky* 45
Composition, Heat Treatment and Cold Work Effect on the Hydrogen Embrittlement of Stainless Steel Wire During Cathodic Pickling—*By Carl A. Zapffe and O. George Specht, Jr*..... 193
Compression; Cold Work Hardening Properties of Stainless Steel in—*By F. K. Bloom, G. N. Goller and P. G. Mabus*..... 843
Constitution of the System Indium-Tin—*By F. N. Rhines, W. M. Urquhart and H. R. Hoge* 694
Corrosion of 18-8 Ti; Quantitative Evaluation of Intergranular—*By Freeman J. Phillips* 891
Creep Properties and Stress Rupture of Heat Resistant Gas Turbine Alloys—*By Nicholas J. Grant* 281
Crystals; X-Ray Study of the Effect of High Hydrostatic Pressures on the Perfection of—*By Louis Rosen* 713

D

Decarburization During Annealing of Malleable Iron—*By H. A. Schwartz and James Hedberg* 61
Decarburized Steel; Effect of Composition on the Fatigue Strength of—*By L. R. Jackson and T. E. Pochapsky* 45
Deoxidation of Killed Steel with Silicon Carbide and Its Effect on Physical Properties and Hardenability; Ladle—*By Edward A. Loria and A. Paul Thompson* 651
Development of Temper Brittleness in Alloy Steels—*By W. S. Pellini and B. R. Queneau* 139
Development of a Turbosupercharger Bucket Alloy—*By E. Epremian*.... 261
Ductility of Metals Under General Conditions of Stress and Strain—*By John E. Dorn and E. G. Thomsen* 741

E

Effect of Composition on the Fatigue Strength of Decarburized Steel—*By L. R. Jackson and T. E. Pochapsky* 45
Effect of Composition, Heat Treatment, and Cold Work on the Hydrogen Embrittlement of Stainless Steel Wire During Cathodic Pickling—*By Carl A. Zapffe and O. George Specht, Jr*..... 193
Effect of Composition and Structural Changes on the Rupture Properties of Certain Heat Resistant Alloys at 1500 F—*By Nicholas J. Grant*.. 368

Effect of High Hydrostatic Pressures on the Perfection of Crystals; X-Ray Study of the—*By Louis Rosen* 713
Electrolytic Conductivity as a Method for Studying Electronic Transitions in Elements—Application to Iron, Nickel and Cobalt—*By W. R. Ham and C. H. Samans* 73
Electronic Transitions in Elements; Electrolytic Conductivity as a Method for Studying—Application to Iron, Nickel and Cobalt—*By W. R. Ham and C. H. Samans* 73
Electroplating (Chromium and Cadmium) and the Nature of Recovery of Plated Articles; Measurement of Embrittlement During—*By Carl A. Zapffe and M. Eleanor Haslem* 241
Embrittlement Measurement During Chromium and Cadmium Electroplating and the Nature of Recovery of Plated Articles—*By Carl A. Zapffe and M. Eleanor Haslem* 241

F

Fatigue Strength of Decarburized Steel; Effect of Composition on—*By L. R. Jackson and T. E. Pochapsky* 45
Furnace Brazing as Applied to 12% Chromium Low Carbon Steel; Study of—*By T. H. Gray* 453

G

Gas Turbine Alloys Revealed by the Stress Rupture Test; Structural Variations in—*By Nicholas J. Grant* 335
Gas Turbine Alloys; Stress Rupture and Creep Properties of Heat Resistant—*By Nicholas J. Grant* 281
Gun Tubes; Ingot Factors in the Production of Seamless—*By J. W. Spretnak, K. L. Fetters and E. L. Layland* 627

H

Hardenability and Physical Properties; Ladle Deoxidation of Killed Steel with Silicon Carbide and Its Effect on—*By Edward A. Loria and A. Paul Thompson* 651
Hardening (Bainitic) of High Speed Steel—*By C. K. Baer and Peter Payson* 488
Heat Resistant Alloys at 1500 F; Effect of Composition and Structural Changes on the Rupture Properties of Certain—*By Nicholas J. Grant* 368
Heat Resistant Gas Turbine Alloys; Stress Rupture and Creep Properties of—*By Nicholas J. Grant* 281
Heat Treatment, Composition and Cold Work Effect on the Hydrogen Embrittlement of Stainless Steel Wire During Cathodic Pickling—*By Carl A. Zapffe and O. George Specht, Jr.* 193
Heat Treatment of Work-Hardened 61S-W Aluminum Alloy Sheet; Precipitation—*By J. J. Warga* 680
High Alloy Tool Steels; Tempering of—*By George A. Roberts, Arthur H. Grobe and Christian F. Moersch, Jr.* 521
High Carbon-High Chromium Steels Due to Subzero Treatments; Changes in Size and Toughness of—*By L. E. Gippert and G. M. Butler, Jr.* 549
High Hydrostatic Pressures on the Perfection of Crystals; X-Ray Study of the Effect of—*By Louis Rosen* 713
High Speed Steel; Bainitic Hardening of—*By C. K. Baer and Peter Payson* 488
Hydrogen Embrittlement of Mild Steel and Stainless Steel Wire; Acid Composition, Concentration, Temperature and Pickling Time as Factors in—*By Carl A. Zapffe and M. Eleanor Haslem* 213

Hydrogen Embrittlement of Stainless Steel Wire During Cathodic Pickling; Effect of Composition, Heat Treatment and Cold Work on the —*By Carl A. Zapffe and O. George Specht, Jr.* 193
Hydrogen in Metal-Arc Welding of Steel; Practical Importance of—*By S. A. Herres* 162
Hypoeutectoid Carbon Content; Carburized Cases of—*By P. C. Rosenthal and G. K. Manning* 801

I

Indium-Tin System; Constitution of—*By F. N. Rhines, W. M. Urquhart and H. R. Hoge* 694
Ingot Factors in the Production of Seamless Gun Tubes—*By J. W. Spretnak, K. L. Fetters and E. L. Layland* 627
Ingots; Kinetics of Solidification of Killed—*By J. W. Spretnak*..... 569
Intergranular Corrosion of 18-8 Ti; Quantitative Evaluation of—*By Freeman J. Phillips* 891
Iron, Nickel and Cobalt; Application to—Electrolytic Conductivity as a Method for Studying Electronic Transitions in Elements—*By W. R. Ham and C. H. Samans* 73
Isothermal Transformation of Austenite—*By Axel Hultgren* 915

K

Killed Steel with Silicon Carbide and Its Effect on Physical Properties and Hardenability; Ladle Deoxidation of—*By Edward A. Loria and A. Paul Thompson* 651
Kinetics of Solidification of Killed Steel Ingots—*By J. W. Spretnak*..... 569
Krupp-Type Carburizing Steels; Transformations in—*By A. R. Troiano and J. E. DeMoss* 788

L

Ladle Deoxidation of Killed Steel with Silicon Carbide and Its Effect on Physical Properties and Hardenability—*By Edward A. Loria and A. Paul Thompson* 651
Low Carbon Steel; Pole Figures of the Effect of Some Cold Rolling Mill Variables on—*By John Karl Wood, Jr.* 725
Low Carbon Steel; Study of Furnace Brazing as Applied to 12% Chromium—*By T. H. Gray* 453

M

Magnesium Sheet; Precipitation in—*By C. T. Haller and C. S. Barrett*.. 670
Malleable Iron; Decarburization During Annealing of—*By H. A. Schwartz and James Hedberg* 61
Measurement of Embrittlement During Chromium and Cadmium Electroplating and the Nature of Recovery of Plated Articles—*By Carl A. Zapffe and M. Eleanor Haslem* 241
Mechanical Properties of Cast Low Alloy Steels—*By Malcolm F. Hawkes* 1
Metal-Arc Welding of Steel; Practical Importance of Hydrogen in—*By S. A. Herres* 162
Metallographic Etchant to Reveal Temper Brittleness in Steel—*By J. B. Cohen, A. Hurlich and M. Jacobson* 109
Metals Under General Conditions of Stress and Strain; Ductility of—*By John E. Dorn and E. G. Thomsen*..... 741
Mild Steel and Stainless Steel Wire; Acid Composition, Concentration, Temperature, and Pickling Time as Factors in the Hydrogen Embrittlement of—*By Carl A. Zapffe and M. Eleanor Haslem*..... 213

N

New Wrought Zinc Alloys Containing Small Amounts of Beryllium—*By R. H. Harrington* 773
Nickel-Chromium Steels During Exposures at 1100 to 1700 F; Changes in Austenitic—*By Peter Payson and Charles H. Savage* 404
Nickel, Iron and Cobalt; Application to—Electrolytic Conductivity as a Method for Studying Electronic Transitions in Elements—*By W. R. Ham and C. H. Samans* 73

O

Oxide and Carbide in Surface Zones of Carburized Alloy Steels—*By Axel Hultgren and Erik Hägglund*..... 820

P

Physical Properties and Hardenability; Ladle Deoxidation of Killed Steel with Silicon Carbide and Its Effect on—*By Edward A. Loria and A. Paul Thompson* 651
Plated Articles; Measurement of Embrittlement During Chromium and Cadmium Electroplating and the Nature of Recovery of—*By Carl A. Zapffe and M. Eleanor Haslem* 241
Pole Figures of the Effect of Some Cold Rolling Mill Variables on Low Carbon Steel—*By John Karl Wood, Jr.* 725
Practical Importance of Hydrogen in Metal-Arc Welding of Steel—*By S. A. Herres* 162
Precipitation Heat Treatment of Work-Hardened 61S-W Aluminum Alloy Sheet—*By J. J. Warga* 680
Precipitation in a Magnesium Sheet—*By C. T. Haller and C. S. Barrett* 670

Q

Quantitative Evaluation of Intergranular Corrosion of 18-8 Ti—*By Freeman J. Phillips* 891

R

Rupture Properties of Certain Heat Resistant Alloys at 1500 F; Effect of Composition and Structural Changes on—*By Nicholas J. Grant*..... 368

S

Seamless Gun Tubes; Ingot Factors in the Production of—*By J. W. Spretnak, K. L. Fetters and E. L. Layland*..... 627
Silicon Carbide and Its Effect on Physical Properties and Hardenability; Ladle Deoxidation of Killed Steel with—*By Edward A. Loria and A. Paul Thompson* 651
Solidification of Killed Steel Ingots; Kinetics of—*By J. W. Spretnak*.... 569
Stability of Austenite in Stainless Steels—*By C. B. Post and W. S. Eberly* 868
Stainless Steel in Compression; Cold Work Hardening Properties of—*By F. K. Bloom, G. N. Goller and P. G. Mabus*..... 843
Stainless Steels; Stability of Austenite in—*By C. B. Post and W. S. Eberly* 868
Stainless Steel Wire; Acid Composition, Concentration, Temperature, and Pickling Time as Factors in the Hydrogen Embrittlement of Mild Steel and—*By Carl A. Zapffe and M. Eleanor Haslem* 213
Stainless Steel Wire During Cathodic Pickling; Effect of Composition, Heat Treatment, and Cold Work on the Hydrogen Embrittlement of —*By Carl A. Zapffe and O. George Specht, Jr.*..... 193

Strain and Stress; Ductility of Metals Under General Conditions of—*By John E. Dorn and E. G. Thomsen* 741
Stress Rupture and Creep Properties of Heat Resistant Gas Turbine Alloys—*By Nicholas J. Grant* 281
Stress Rupture Test; Structural Variations in Gas Turbine Alloys Revealed by the—*By Nicholas J. Grant* 335
Stress and Strain; Ductility of Metals Under General Conditions of—*By John E. Dorn and E. G. Thomsen* 741
Structural Changes and Effect of Composition on the Rupture Properties of Certain Heat Resistant Alloys at 1500 F—*By Nicholas J. Grant*.. 368
Structural Variations in Gas Turbine Alloys Revealed by the Stress Rupture Test—*By Nicholas J. Grant* 335
Study of Furnace Brazing as Applied to 12% Chromium Low Carbon Steel—*By T. H. Gray* 453
Subzero Treatments; Changes in Size and Toughness of High Carbon-High Chromium Steels Due to—*By L. E. Gippert and G. M. Butler, Jr.* 549
Surface Zones of Carburized Alloy Steels; Carbide and Oxide in—*By Axel Hultgren and Erik Hägglund* 820

T

Temper Brittleness in Alloy Steels; Development of—*By W. S. Pellini and B. R. Queneau* 139
Temper Brittleness in Steel; Metallographic Etchant to Reveal—*By J. B. Cohen, A. Hurlich and M. Jacobson* 109
Tempering of High Alloy Tool Steels—*By George A. Roberts, Arthur H. Grobe and Christian F. Moersch, Jr.* 521
Titanium (18-8); Quantitative Evaluation of Intergranular Corrosion of—*By Freeman J. Phillips* 891
Tool Steels (High Alloy); Tempering of—*By George A. Roberts, Arthur H. Grobe and Christian F. Moersch, Jr.* 521
Transformation of Austenite; Isothermal—*By Axel Hultgren* 915
Transformations in Krupp-Type Carburizing Steels—*By A. R. Troiano and J. E. DeMoss* 788
Tubes; Ingot Factors in the Production of Seamless Gun—*By J. W. Spretnak, K. L. Fetters and E. L. Layland* 627
Turbosupercharger Bucket Alloy; Development of—*By E. Epremian*.... 261

W

Welding of Steel; Practical Importance of Hydrogen in Metal-Arc—*By S. A. Herres* 162
Work-Hardened 61S-W Aluminum Alloy Sheet; Precipitation Heat Treatment of—*By J. J. Warga* 680
Wrought Zinc Alloys Containing Small Amounts of Beryllium—*By R. H. Harrington* 773

X

X-Ray Study of the Effect of High Hydrostatic Pressures on the Perfection of Crystals—*By Louis Rosen*..... 713

Z

Zinc Alloys Containing Small Amounts of Beryllium; New Wrought—*By R. H. Harrington* 773